

# Work Order ID 71120

Thursday, June 23, 2011 11:04:31 AM



Page 1

Item ID: D4037-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Aft Crossbeam

Start Date: 6/23/2011 Start Qty: 3.00



Cust Item ID:

Required Date: 7/7/2011 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals: Process Plan: CZ

Date: 11/06/12

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4037

D

100

0.00



Waterjet

Memo

0.00

FLOW CNC Waterjet

6861 1.1X19

Cut blank as per file D4037-1\_BLANK

B11-7-6

(3)

110

0.00



HAAS I

Memo

0.00

HAAS CNC vertical machine #1

MACHINE AS PER FOLI FA877 AND DWG

FOLIO REV: 11/06/12

DWG REV: D

DEBURR

24 12.6.13

3

FK 12/06/14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120  QC Quality Control	QC2- Inspect parts off machine FAI/FAIB  Memo	0.00 0.00		26 12-6-13 FK 12/06/14		3			
130  QC Quality Control	QC8- Inspect parts - second check  Memo	0.00 0.00		SL 12-06-15		3			
140  HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00 0.00							3: 26 12-6-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Cust Item ID:

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Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 Powdercoat Powder Coating  MI21134	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum  Memo	0.00 0.00				3X			m-l 12/6/18
160 QC Quality Control	QC3- Inspect Part Finish  Memo	0.00 0.00				0			12/6/18
170 Packaging Packaging	Identify as per dwg & Stock Location  Memo	0.00 0.00				30			12/6/18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 71120**

Thursday, June 23, 2011 11:04:31 AM



Page 4

Item ID: D4037-1

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Revision ID:

Stop



Item Name: Aft Crossbeam

Start Date: 6/23/2011 Start Qty: 3.00



Cust Item ID:

Required Date: 7/7/2011 Req'd Qty: 3.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

12/6/19

K120619

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Thursday, June 23, 2011 11:04:29 AM

Page 1

Work Order ID: 71120

Parent Item: D4037-1

Parent Item Name: Aft Crossbeam



Start Date: 6/23/2011

Required Date: 7/7/2011

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP REV:A NEW ISSUE 09-12-14 JLM VERIFIED BY:EC IPP  
REV:B AS PER REV B 10-04-19 JLM VERIFIED BY:EC IPP REV  
C:AS PER ECN 10-563 10-09-28 JLM VERIFIED BY:DD  
IPP REV:D AS PER ECN 11-554 11-05-24 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6B1.000X15.00

Purchased

No

100

f

12.2000

3.9

12.31579

0



6061-T6 Bar 1.00 x 15.00



B11-7-6

Location

Loc Qty

Loc Code

MAT005

12.2

115173

12

117372

0.2

118184

118184

(3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

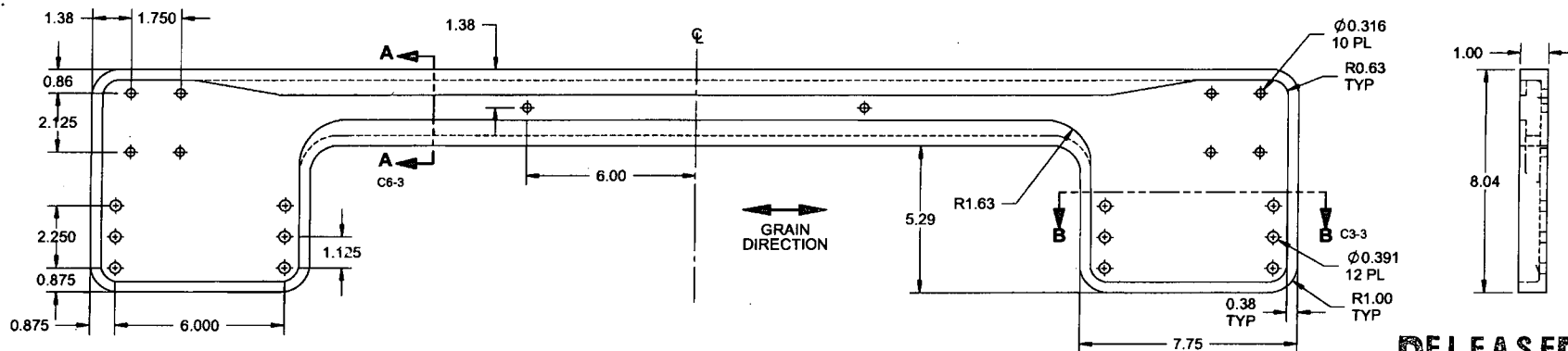
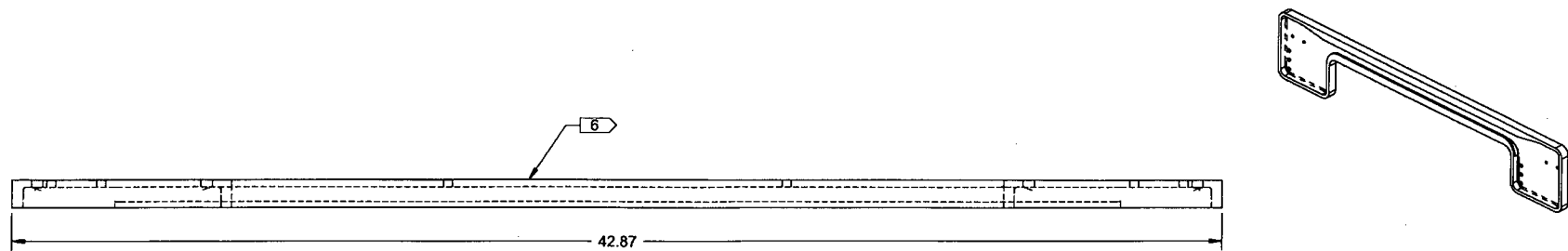
<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	71120
<b>Description:</b> Aft Crossbeam		<b>Part Number:</b>	D4037-1
<b>Inspection Dwg:</b> D4037 <b>Rev:</b> D		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.530	+/-0.010	.521			RQ - 02	Vern.
0.25	+/-0.030	.255			"	"
2.00	+/-0.030	1.995			"	"
2.75	+/-0.030	2.754			"	"
1.00	+/-0.030	1.00			"	"
R0.032	+/-0.010	.032			rad gauge	
42.87	+/-0.030	42.875			RQ	Tape
1.38	+/-0.030	1.375			RQ - 02	Vern.
1.750	+/-0.010	1.752			"	"
2.125	+/-0.010	2.125			"	"
2.250	+/-0.010	2.250			"	"
0.875	+/-0.010	.877			"	"
0.875	+/-0.010	.877			"	"
6.000	+/-0.010	6.000			"	"
1.125	+/-0.010	1.125			"	"
0.86	+/-0.030	.854			"	"
1.38	+/-0.030	1.375			"	"
1.38	+/-0.030	1.375			"	"
8.04	+/-0.030	8.046			"	"
5.29	+/-0.030	5.295			"	"
6.00	+/-0.030	6.00			"	"
Ø0.316	+0.006/-0.001	.316			"	"
Ø0.391	+0.006/-0.001	.391			"	"

<b>Measured by:</b> RP	<b>Audited by:</b> SL	<b>Preliminary Approval:</b>
<b>Date:</b> 12-6-13	<b>Date:</b> 12-06-15	<b>Date:</b>

Rev	Date	Change	Revised by	Approved
A	10.06.08	New Issue	KJ	
B	11.06.21	Dwg Rev updated	KJ	



**D4037-1 AFT CROSSBEAM**

**RELEASED**  
2011-04-23

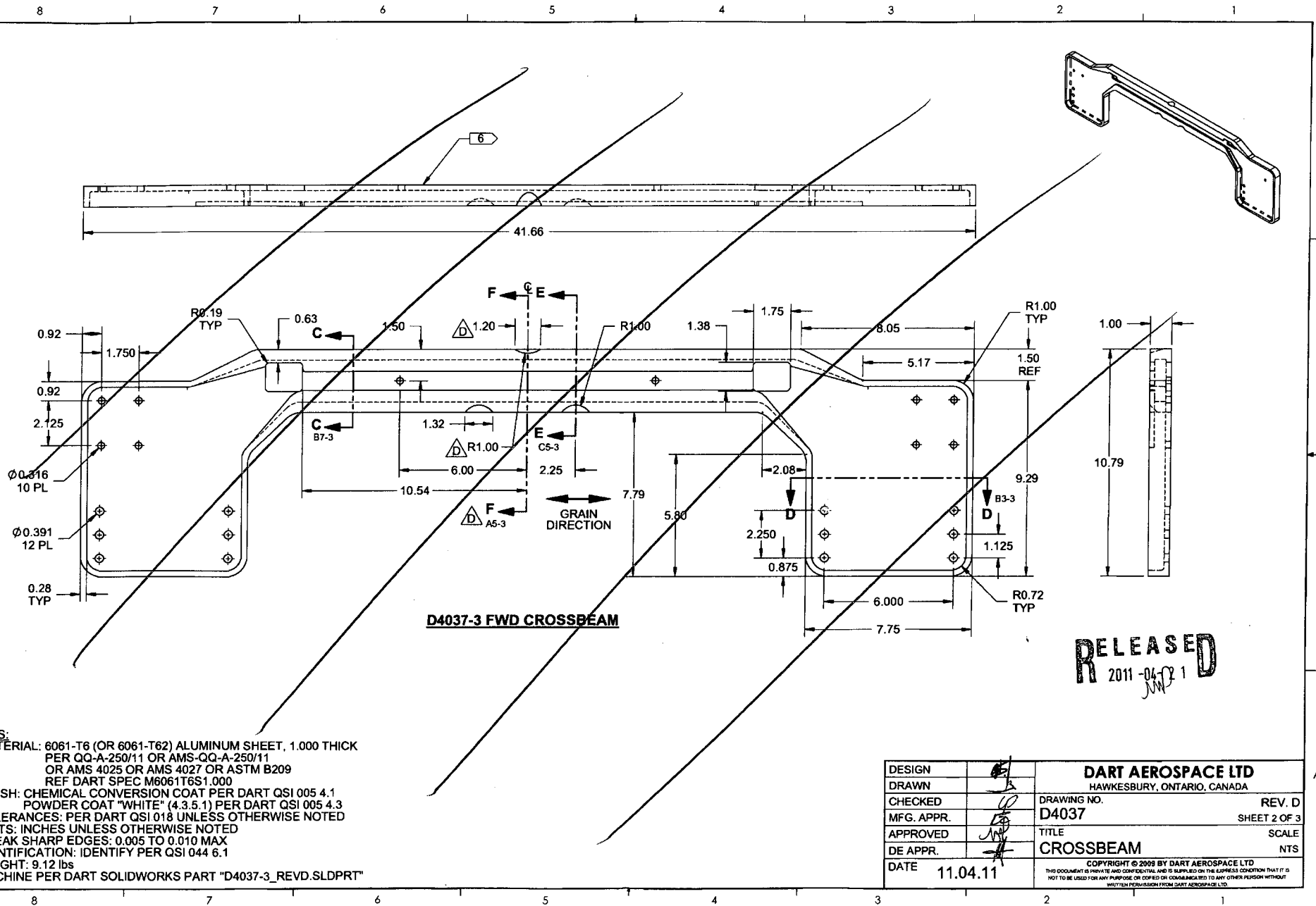
- NOTES:**
- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 1.000 THICK  
PER QQ-A-250/11 OR AMS-QQ-A-250/11  
OR AMS 4025 OR AMS 4027 OR ASTM B209  
REF DART SPEC M6061T6S1.000
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
  - 7) WEIGHT: 8.48 lbs
  - 8) MACHINE PER DART SOLIDWORKS PART "D4037-1\_REV.D.SLDPRT"

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 71120  
02/11/06/23

D	MODIFY -3 PART FOR CLEARANCE. REF: NOR11-543.	MB	11.04.11
C	MODIFY -3 PART FOR CLEARANCE HOLES. SHT 2; UPDATE MATERIAL SPEC SHT 1, 2; 8.05 WAS 9.83; ADD GRAIN DIRECTION	HS	10.09.15
B	ADJUST DIMS AND REPOSITION HOLES, ZN B4-1, C8-1, C8-2	HS	10.02.10
A	NEW ISSUE	HS	09.12.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.04.11		

<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. <b>D4037</b>	REV. D
TITLE <b>CROSSBEAM</b>	SCALE NTS
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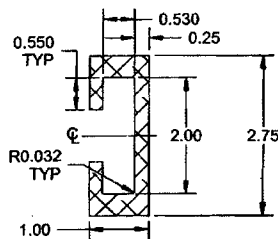


**D4037-3 FWD CROSSBEAM**

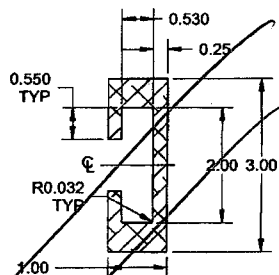
**RELEASED**  
 2011-04-11

- NOTES:**
- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 1.000 THICK  
 PER QQ-A-250/11 OR AMS-QQ-A-250/11  
 OR AMS 4025 OR AMS 4027 OR ASTM B209  
 REF DART SPEC M6061T6S1.000
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
 POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
  - 7) WEIGHT: 9.12 lbs
  - 8) MACHINE PER DART SOLIDWORKS PART "D4037-3\_REV.D.SLDPRT"

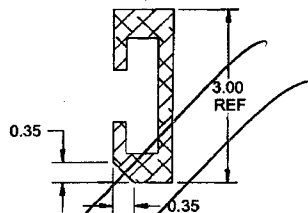
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		<b>D4037</b>	SHEET 2 OF 3
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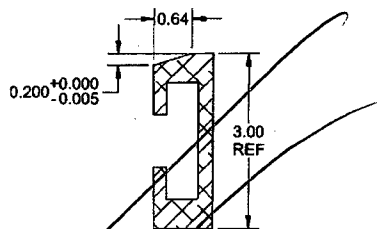
**SECTION A-A** B6-1  
SCALE 2X



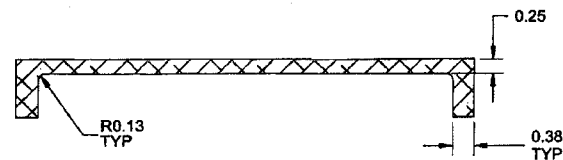
**SECTION C-C** B6-2  
SCALE 2X



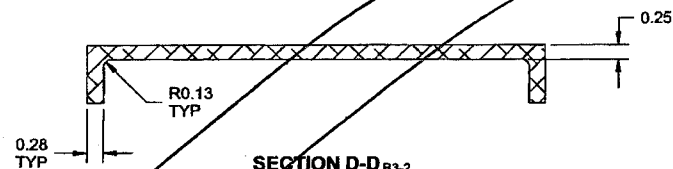
**SECTION E-E** B5-2  
SCALE 2X



**SECTION F-F** B5-2  
SCALE 2X



**SECTION B-B** B2-1  
SCALE 2X



**SECTION D-D** B3-2  
SCALE 2X

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2011-04-31

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CHECKED		DRAWING NO. <b>D4037</b>	REV. D
MFG. APPR.		TITLE	SHEET 3 OF 3
APPROVED		<b>CROSSBEAM</b>	SCALE
DE APPR.			NTS
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